



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(54) Title: BIOLOGICALLY ACTIVE PEPTIDE FRAGMENTS OF OB PROTEIN

## (57) Abstract

The present invention provides a protein fragment of the *ob* protein, being an active site of said protein. The active site is suitably provided by the *ob* protein when it is in the form of a four helix bundle structure, particularly that having an up-up down-down topology. In particular, the active site is formed from one or more amino acids selected from one or more of the four helices forming the secondary structure of the *ob* protein, especially a protein fragment consisting of amino acid residues 26 to 39, 74 to 88, 93 to 113 or 142 to 161. The compounds of the invention are considered to be capable of regulating the physiological activity of the *ob* protein and are therefore of potential use in the treatment of nutritional and metabolic disorders, particularly obesity and diabetes in the case of agonists and anorexia and cachexia in the case of antagonists.

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## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB 96/01094A. CLASSIFICATION OF SUBJECT MATTER  
IPC 6 C07K14/47 C07K14/575 A61K38/17 A61K38/22

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 6 C07K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	WO 96 23815 A (LILLY CO ELI ;HEATH WILLIAM F JR (US); MANETTA JOSEPH V (US); SHIE) 8 August 1996 see SeqID no's. 2, 5 see claims; examples ---	1-4
E	WO 96 23514 A (LILLY CO ELI ;BASINSKI MARGRET B (US); DIMARCHI RICHARD D (US); FL) 8 August 1996 see claims; examples ---	1-4,8-10
P,X	WO 96 05309 A (UNIV ROCKEFELLER ;FRIEDMAN JEFFREY M (US); ZHANG YIYING (US); PROE) 22 February 1996 see page 36, line 18 - page 40, line 10; claims; examples ---	1-4,8-10
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 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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24 March 1997

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International Application No  
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>NATURE, vol. 372, no. 6505, 1 December 1994, pages 425-432, XP000602062 YIYING ZHANG ET AL: "POSITIONAL CLONING OF THE MOUSE OBESE GENE AND ITS HUMAN HOMOLOGUE" see figures 4,6</p> <p>-----</p>	1-10

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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